**Graphing in Slope-Intercept Form**

**Example 1:**

**Step 1:** Press “y=” button

**Step 2:** On the line that reads “\Y1”, type in: **1/2X+3**

**Step 3:** Press “ZOOM”. Scroll down and select 6, and press “ENTER”

**Step 4:** Now, go back to “y=” on the line that reads “\Y2”, type in: **2X-2**

**Step 5:** Press “GRAPH” button and now you should see both lines.

**Step 6:** Now, go back to “y=” on the line that reads “\Y3”, type in: **3X+7**

**Step 7:** Press “GRAPH” button and now you should see all three lines.

**Step 8:** Now, go back to “y=” on the line that reads “\Y4”, type in: **8X-4**

**Step 9:** Press “GRAPH” button and now you should see all four lines.

**Question 1:** Based off of the graph on your calculator, which line is steeper?

**Question 2:** If you did not graph y = 1/2x + 3, y = 2x + 2, y = 5x + 7, and y = 8x + 4 on your graphing calculator, how would you know which line is steeper?

**Example 2:**

**Step 1:** Press “y=” button

**Step 2:** On the line that reads “\Y1”, type in: **-1/2x+3**

**Step 3:** Press “ZOOM”. Scroll down and select 6, and press “ENTER”

**Step 4:** Now, on the line that reads “\Y2”, type in: **-2x-2**

**Step 5:** Press “GRAPH” button and now you should see both lines.

**Step 6:** Now, go back to “y=” on the line that reads “\Y3”, type in: -**3X+7**

**Step 7:** Press “GRAPH” button and now you should see all three lines.

**Step 8:** Now, go back to “y=” on the line that reads “\Y4”, type in: -**8X-4**

**Step 9:** Press “GRAPH” button and now you should see all four lines.

**Question 1:** Based off of the graph on your calculator, which line is steeper?

**Question 2:** If you did not graph y = -1/2x + 3, y = -2x + 2, y = -5x + 7, and y = -8x + 4 on your graphing calculator, how would you know which line is steeper?

**The greater the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the slope is away from \_\_\_\_\_\_\_\_\_ on the number line, the greater the \_\_\_\_\_\_\_\_\_ of the slope.**

**Direction: Graph the following lines on your calculator and answer the questions.**

|  |  |  |
| --- | --- | --- |
| 1.  Y = 2/3x -1  Y = 4x +2  Which line is steeper? | 2.  Y = 1/4x -1  Y =-2x +8  Which line is steeper? | 3.  Y = 6x - 5  Y = 2x +3  Which line is steeper? |
| 4.  Y = 2x -3  Y = -3/6x + 4  The lines are (circle one):   1. parallel 2. perpendicular   How do you know? | 5.  Y = 15/3x -3  Y = 5x + 4  The lines are (circle one):   1. parallel 2. perpendicular   How do you know? | 6.  Y = -5x - 2  Y = 1/5x - 4  The lines are (circle one):   1. parallel 2. perpendicular   How do you know? |
| 7.  Y = 49/7x - 5  Y = 35/5x + 1  The lines are (circle one):   1. parallel 2. perpendicular   How do you know? | 8.  Y = 6/8x - 4  Y = -4/3x + 1  The lines are (circle one):   1. parallel 2. perpendicular   How do you know? | 9.  Y = 12/2x - 6  Y = 6x - 7  The lines are (circle one):   1. parallel 2. perpendicular   How do you know? |